ASH GROVE CEMENT COMPANY

WESTERN REGION
230 CEMENT ROAD
INKOM, IDAHO 83245-1543
PHONE 208 / 775-3351
FAX 208 / 775-3509

August 24, 2007

Certified Mail – Return Receipt Requested: 7003 3110 0005 1151 2453

Mr. Bill Rogers
Idaho Department of Environmental Quality
1410 N. Hilton
Boise ID 83706-1255

RE: Clinker Import Increase Permit to Construct Application
Ash Grove Cement Company, Inkom, Idaho

Dear Mr. Rogers:

Please find enclosed a Permit to Construct application for a clinker import increase to be located at the Ash Grove Cement Company facility located in Inkom, Idaho. Ash Grove Cement would appreciate the State processing this application as rapidly as possible.

Also enclosed is a check in the amount of one thousand dollars ($1,000) for the air permit fee.

If you have any questions about this application, please feel free to call me at (208)-775-3351, ext. 12 or Kelly Packard at (208)-775-3351, ext. 36.

Sincerely,

R Smith

Ron Smith
Plant Manager - Inkom

FEES RECEIVED FROM FACILITY

Date Stamp (date received in PO) RECEIVED AUG 27 2007 Department of Environmental Quality State Air Program	
Facility Name	ASH GROVE
Facility Location	INKOM
Fee Type (PTC Application, PTC Processing, T2 Processing)	PTC APPLICATION
Check Number	2379
Check Date	8/24/07
Check Amount	$1,000

ASH GROVE CEMENT COMPANY

WESTERN REGION
230 CEMENT ROAD
INKOM, IDAHO 83245-1543
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August 24, 2007

Mr. Michael Simon
Manager, Stationary Source Division
Department of Environmental Quality
1410 N. Hilton
Boise ID 83706-1255

Subject: Permit to Construct Application
Clinker Import Increase
Inkom, Idaho

Dear Mr. Simon:

Ash Grove Cement Company (Ash Grove) owns and operates a Portland cement manufacturing facility in Inkom, Idaho. The Inkom facility is governed by a Tier I air operating permit that will expire on December 17, 2007; a Tier I renewal application was submitted in June and is currently being reviewed.

The Tier I permit incorporates conditions established in a 2005 Permit to Construct (PTC # P-050314) that authorized construction and operation of a belly-dump clinker unloading station to facilitate importing of clinker from other cement plants. Ash Grove is proposing 1) to remove the limit on the quantity of imported clinker that can be unloaded annually and 2) to install a conveyor to transfer clinker from bucket elevator #2 to the clinker stacking belt. Ash Grove is not seeking to increase the amount of clinker processed into cement, but is seeking the flexibility to 1) make the clinker on-site; 2) import the clinker; or 3) some combination of the two. The new conveyor will allow imported clinker to be diverted to the clinker storage shed rather than being limited to only the clinker silos. Emissions from clinker handling will be inherently controlled by the annual limit of 394,106 tons per year of Portland cement the plant is currently permitted to manufacture. Ash Grove is not requesting to change this limit.

The purpose of this letter is to request the removal of the limit on imported clinker and address the range of air quality regulatory programs that require consideration when a change in operation of an emission unit is contemplated. Standard Permit to Construct forms supporting this request are being submitted electronically.

What is Ash Grove proposing?

Ash Grove is proposing an alternative operating scenario for manufacturing Portland cement. PTC # P-050314 allows the import of 55,000 tons per year of clinker. Combined with the maximum clinker production limits on the kilns, which totals 304,848 tons per year, the plant can manufacture a total of 394,106 tons Portland cement.[1] Ash Grove proposes to maintain the 394,106 ton per year limit on Portland cement but requests that the clinker used in the

[1] Gypsum and limestone are added to the clinker in the grinding operation to make up the difference between 360,000 tons of clinker and 394,106 tons of cement.

manufacture of the cement be either imported, produced by the kilns, or a combination of the two. The only current destination for imported clinker is storage silos 21, 22, and 23. To expand the clinker storage, Ash Grove proposes to install a conveyor belt to transfer clinker from elevator #2 to the stacking belt which conveys clinker to a stacking pipe in the clinker storage shed.

Will this change increase emissions?

By a substantial margin, the dominant sources of emissions from the Inkom facility are the two kiln stacks. Given the limit on cement production, increasing clinker importation would eventually reduce clinker manufacture on site and reduce the kiln stack emissions. This reduction would far outweigh the modest dust emissions associated with importing clinker. For the sake of this PTC application, however, we consider only the increase in emissions associated with a higher clinker unloading rate, the clinker transfer points, and the emissions associated with an increase in operating time for baghouse #2.

The May 2005 permit application and the Statement of Basis for PTC P-050314 document emission estimates associated with 1) a railcar/truck belly dumping clinker to an underground hopper; 2) a transfer from the underground hopper to a belt conveyor; 3) a transfer from the belt conveyor to the elevator[2]; and 4) increased hours of operation of an existing baghouse used to control emissions from the clinker silo elevator.

All proposed transfer points for the new belt conveyor are enclosed and Ash Grove assumes 95 percent of the transfer point emissions will be captured and routed to baghouse #2 and five percent fugitive emissions. In order to accommodate the potential increase in clinker unloading, baghouse #2 will need to operate a minimum of 3,600 hours per year (360,000 tons clinker per year divided by 100 tons clinker transferred per hour). The potential emissions for baghouse #2 are based on operating at 8,760 hours per year, although Ash Grove expects to run baghouse #2 for fewer hours than the potential.

The current clinker throughput for the stacking belt, the stacking pipe, and the clinker storage shed is 304,848 tons per year (the production limit of the cement kilns). Annual clinker throughput for the stacking belt, stacking pipe, and the clinker storage shed will be increased 55,000 tons per year to accommodate a total of 360,000 tons of clinker per year. Again, Ash Grove assumes that 95 percent of transfer point emissions from the stacking belt, stacking pipe, and the clinker storage shed are captured and controlled by baghouse #1 and baghouse #3. No changes to the operating hours for baghouses #1 and #3 are required for the proposed clinker unloading increase. Currently, both baghouses #1 and #3 are permitted to operate for more than 3,600 hours per year.

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[2] Emission calculations for the belt conveyor to elevator #2 transfer point included in the May 2005 PTC application are erroneous because the transfer point emissions are controlled by baghouse #2. This application corrects the emission calculation error by including only fugitive emissions calculations for the transfer point. Ash Grove assumes 95 percent of the transfer point emissions will be captured and routed to baghouse #2 and five percent of the transfer point emissions will be fugitive.

Table 1, attached, identifies emission factors and 1-hour, 24-hour, and annual PM10 emissions associated with the current and proposed clinker throughput rates. There will be no increase in hourly PM10 emission from the facility and only a 2.7 ton increase in annual PM10 emissions from the clinker unloading facility. Table 2 presents the same information for PM emissions. Again, the higher throughput would result in no increase in hourly PM emissions, but annual PM emissions would increase by 3.0 tons.

Note, however, that Ash Grove does not propose to increase the gypsum throughput or the quantity of cement produced and shipped. The proposed increase in the clinker unloading throughput limit simply provides Ash Grove with the flexibility to manufacture or import clinker to meet customer demands for cement. Because cement production is limited by permit and the physical constraints of the clinker unloading system limit short-term throughput, Ash Grove contends that the clinker throughput is inherently limited and that a throughput limit in the PTC or operating permits is unwarranted.

What air quality regulatory programs are relevant to this change?

National Emission Standards for Hazardous Air Pollutants

As confirmed by the Facility's existing Tier I permit, the Inkom facility is an area source of hazardous air pollutants (HAPs). The proposed increase in the throughput limit for the clinker unloading facility will have no direct effect on the facility HAP emissions because the only relevant pollutant is particulate matter. However, to the extent that substantially higher quantities of clinker are imported, the proposed permit change may indirectly reduce HAP emissions by reducing kiln operation.

New Source Performance Standards

The clinker unloading facility is currently subject to NSPS Subpart F. Units are considered "modified" under NSPS regulations when a physical or operational change results in an increase in potential hourly emissions of a pollutant regulated by a given NSPS. The proposed new clinker conveyor belt is considered a modification according to the NSPS definition. The only substantive requirement that applies to the proposed conveyor belt is an opacity limit of 10 percent. The existing clinker handling processes are already subject to these same NSPS requirements.

Prevention of Significant Deterioration

The Inkom plant is a major source of emissions with respect to the PSD program. A physical change or change in the method of operation that results in a significant net increase in emissions requires a PSD permit. As indicated in Tables 1 and 2, the increases in potential PM and PM10 emissions from a higher clinker throughput rate are 3.0 and 2.7 tons per year, respectively. These increases are well below the Significant PM and PM10 Emission Rates of 25 and 15 tons per year, respectively.

In practice, PSD applicability is determined by comparing a future potential or project actual emissions rate against a baseline actual emission rate. Even if we assume the baseline emissions are zero, the future potential emissions of PM and PM10 (at 3.4 and 3.0 tons per year, respectively) are well below the PSD Significant Emission Rates.

Minor Source Permit to Construct

A PTC is needed because there is an existing PTC limit of 55,000 tons per year and Ash Grove proposes to install a new clinker conveyor. Standard DEQ PTC forms will be submitted electronically. Modeling is not required because there is no increase in hourly emissions and the increase in annual emissions is less than 7 tons.

Table 1 presents potential hourly and daily emissions, which are limited by the 100 ton per hour elevator capacity. Annual emissions are based on the proposed throughput of 360,000 tons of clinker imported per year, but a specific PTC limit is not necessary because downstream limits on cement production limit the quantity of clinker that can be processed.

Tier I Air Operating Permit

The proposed increases in the throughput limit would contravene the throughput limit in the existing Tier I permit. Consequently, Ash Grove requests the use of the significant permit modification procedure to revise the Tier I permit concurrent with the PTC process. Information required for a Significant (Tier I) Permit Modification is included in this application.

In accordance with IDAPA 58.01.01.123 (*Rules for the Control of Air Pollution in Idaho*), I, Ron Smith, certify based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Please feel free to call me at 208.775.3351 ext.12, or our consultant, Eric Hansen, at 425.921.4005 if you have any questions about this application.

Respectfully,
Ash Grove Cement Company

R. Smith

Ron Smith
Plant Manager

cc: Kelly Packard – Ash Grove Cement, Inkom
Robert Vantuyl – Ash Grove Cement, Overland Park
Eric Hansen – Geomatrix Consultants, Inc.

Table 1. PM10 Emissions Summary

Current Approved Operations

			Hourly		Daily		Annual	
	Emission Factor	Ref.	Throughput	Emissions	Throughput	Emissions	Throughput	Emissions
Bellydump to hopper	0.0001 lb/ton	a	100 tons/hr	0.01 lb/hr	500 tons/day	0.05 lb/day	55,000 tons/yr	0.003 tons/yr
Hopper to conveyor 1	0.0011 lb/ton	a	100 tons/hr	0.11 lb/hr	500 tons/day	0.55 lb/day	55,000 tons/yr	0.030 tons/yr
Conveyor 1 to elevator	0.0011 lb/ton	a	100 tons/hr	0.11 lb/hr	500 tons/day	0.55 lb/day	55,000 tons/yr	0.030 tons/yr
Stacker belt to stacker	0.0001 lb/ton	b	100 tons/hr	0.006 lb/hr	2,400 tons/day	0.13 lb/day	304,848 tons/yr	0.008 tons/yr
Stacker to clinker pile	0.0001 lb/ton	b	100 tons/hr	0.006 lb/hr	2,400 tons/day	0.13 lb/day	304,848 tons/yr	0.008 tons/yr
Baghouse #2	0.61 lb/hr	c	1 hr	0.61 lb/hr	5 hours	3.07 lb/day	550 hours	0.169 tons/yr
Total				0.86 lb/hr		4.49 lb/day		0.25 tons/yr

Proposed Operation

			Hourly		Daily		Annual	
	Emission Factor	Ref.	Throughput	Emissions	Throughput	Emissions	Throughput	Emissions
Bellydump to hopper	0.0001 lb/ton	a	100 tons/hr	0.01 lb/hr	2,400 tons/day	0.24 lb/day	360,000 tons/yr	0.018 tons/yr
Hopper to conveyor 1	0.0011 lb/ton	a	100 tons/hr	0.11 lb/hr	2,400 tons/day	2.64 lb/day	360,000 tons/yr	0.198 tons/yr
Conveyor 1 to elevator	0.0001 lb/ton	b	100 tons/hr	0.01 lb/hr	2,400 tons/day	0.13 lb/day	360,000 tons/yr	0.010 tons/yr
Elevator to conveyor 2	0.0001 lb/ton	b	100 tons/hr	0.01 lb/hr	2,400 tons/day	0.13 lb/day	360,000 tons/yr	0.010 tons/yr
Conveyor 2 to stacker belt	0.0001 lb/ton	b	100 tons/hr	0.01 lb/hr	2,400 tons/day	0.13 lb/day	360,000 tons/yr	0.010 tons/yr
Stacker belt to stacker	0.0001 lb/ton	b	100 tons/hr	0.006 lb/hr	2,400 tons/day	0.13 lb/day	360,000 tons/yr	0.010 tons/yr
Stacker to clinker pile	0.0001 lb/ton	b	100 tons/hr	0.006 lb/hr	2,400 tons/day	0.13 lb/day	360,000 tons/yr	0.010 tons/yr
Baghouse #2	0.61 lb/hr	c	1 hr	0.61 lb/hr	24 hours	14.76 lb/day	8,760 hours	2.693 tons/yr
Total				0.76 lb/hr		18.30 lb/hr		2.96 tons/yr

Increase

			Hourly		Daily		Annual	
	Emission Factor	Ref.	Throughput	Emissions	Throughput	Emissions	Throughput	Emissions
Bellydump to hopper	0.0001 lb/ton	a	0 tons/hr	0.00 lb/hr	1,900 tons/day	0.19 lb/day	305,000 tons/yr	0.015 tons/yr
Hopper to conveyor 1	0.0011 lb/ton	a	0 tons/hr	0.00 lb/hr	1,900 tons/day	2.09 lb/day	305,000 tons/yr	0.168 tons/yr
Conveyor 1 to elevator	0.0001 lb/ton	b	0 tons/hr	-0.10 lb/hr	1,900 tons/day	-0.42 lb/day	305,000 tons/yr	-0.020 tons/yr
Elevator to conveyor 2	0.0001 lb/ton	b	100 tons/hr	0.01 lb/hr	2,400 tons/day	0.13 lb/day	360,000 tons/yr	0.010 tons/yr
Conveyor 2 to stacker belt	0.0001 lb/ton	b	100 tons/hr	0.01 lb/hr	2,400 tons/day	0.13 lb/day	360,000 tons/yr	0.010 tons/yr
Stacker belt to stacker	0.0001 lb/ton	b	0 tons/hr	0.00 lb/hr	0 tons/day	0.00 lb/day	55,152 tons/yr	0.002 tons/yr
Stacker to clinker pile	0.0001 lb/ton	b	0 tons/hr	0.00 lb/hr	0 tons/day	0.00 lb/day	55,152 tons/yr	0.002 tons/yr
Baghouse #2	0.61 lb/hr	c	0 hr	0.00 lb/hr	19 hours	11.68 lb/day	8,210 hours	2.524 tons/yr
Total				-0.09 lb/hr		13.81 lb/day		2.71 tons/yr

References:

a - AP42 Table 11.19.2-2. Emission Factors for Crushed Stone Processing Operations.

b - AP42 Table 11.19.2-2. Conservatively assume 95 percent of transfer point emissions are captured and routed to a baghouse and five percent fugitive emissions.

c - Baghouse #2 limited to 0.014 grains per dry standard cubic foot.

Table 2. PM Emissions Summary

Current Approved Operations								
		Ref.	Hourly		Daily		Annual	
	Emission Factor		Throughput	Emissions	Throughput	Emissions	Throughput	Emissions
Bellydump to hopper	0.0003 lb/ton	a	100 tons/hr	0.03 lb/hr	500 tons/day	0.15 lb/day	55,000 tons/yr	0.008 tons/yr
Hopper to conveyor 1	0.003 lb/ton	a	100 tons/hr	0.30 lb/hr	500 tons/day	1.50 lb/day	55,000 tons/yr	0.083 tons/yr
Conveyor 1 to elevator	0.003 lb/ton	a	100 tons/hr	0.30 lb/hr	500 tons/day	1.50 lb/day	55,000 tons/yr	0.083 tons/yr
Stacker belt to stacker	0.0002 lb/ton	b	100 tons/hr	0.015 lb/hr	2,400 tons/day	0.36 lb/day	304,848 tons/yr	0.023 tons/yr
Stacker to clinker pile	0.0002 lb/ton	b	100 tons/hr	0.015 lb/hr	2,400 tons/day	0.36 lb/day	304,848 tons/yr	0.023 tons/yr
Baghouse #2	0.61 lb/hr	c	1 hr	0.61 lb/hr	5 hours	3.07 lb/day	550 hours	0.169 tons/yr
Total				1.27 lb/hr		6.94 lb/day		0.39 tons/yr

Proposed Operation								
		Ref.	Hourly		Daily		Annual	
	Emission Factor		Throughput	Emissions	Throughput	Emissions	Throughput	Emissions
Bellydump to hopper	0.0003 lb/ton	a	100 tons/hr	0.03 lb/hr	2,400 tons/day	0.72 lb/day	360,000 tons/yr	0.054 tons/yr
Hopper to conveyor 1	0.003 lb/ton	a	100 tons/hr	0.30 lb/hr	2,400 tons/day	7.20 lb/day	360,000 tons/yr	0.540 tons/yr
Conveyor 1 to elevator	0.0002 lb/ton	b	100 tons/hr	0.02 lb/hr	2,400 tons/day	0.36 lb/day	360,000 tons/yr	0.027 tons/yr
Elevator to conveyor 2	0.0002 lb/ton	b	100 tons/hr	0.02 lb/hr	2,400 tons/day	0.36 lb/day	360,000 tons/yr	0.027 tons/yr
Conveyor 2 to stacker belt	0.0002 lb/ton	b	100 tons/hr	0.02 lb/hr	2,400 tons/day	0.36 lb/day	360,000 tons/yr	0.027 tons/yr
Stacker belt to stacker	0.0002 lb/ton	b	100 tons/hr	0.015 lb/hr	2,400 tons/day	0.36 lb/day	360,000 tons/yr	0.027 tons/yr
Stacker to clinker pile	0.0002 lb/ton	b	100 tons/hr	0.015 lb/hr	2,400 tons/day	0.36 lb/day	360,000 tons/yr	0.027 tons/yr
Baghouse #2	0.61 lb/hr	c	1 hr	0.61 lb/hr	24 hours	14.76 lb/day	8,760 hours	2.693 tons/yr
Total				1.02 lb/hr		24.48 lb/hr		3.42 lb/hr

Increase			Hourly		Daily		Annual	
	Emission Factor	Ref.	Throughput	Emissions	Throughput	Emissions	Throughput	Emissions
Bellydump to hopper	0.0003 lb/ton	a	0 tons/hr	0.00 lb/hr	1,900 tons/day	0.57 lb/day	305,000 tons/yr	0.046 tons/yr
Hopper to conveyor	0.003 lb/ton	a	0 tons/hr	0.00 lb/hr	1,900 tons/day	5.70 lb/day	305,000 tons/yr	0.458 tons/yr
Conveyor 1 to elevator	0.0001 lb/ton	b	0 tons/hr	-0.29 lb/hr	1,900 tons/day	-1.14 lb/day	305,000 tons/yr	-0.056 tons/yr
Elevator to conveyor 2	0.0001 lb/ton	b	100 tons/hr	0.02 lb/hr	2,400 tons/day	0.36 lb/day	360,000 tons/yr	0.027 tons/yr
Conveyor 2 to stacker belt	0.0001 lb/ton	b	100 tons/hr	0.02 lb/hr	2,400 tons/day	0.36 lb/day	360,000 tons/yr	0.027 tons/yr
Stacker belt to stacker	0.0001 lb/ton	b	0 tons/hr	0.00 lb/hr	0 tons/day	0.00 lb/day	55,152 tons/yr	0.004 tons/yr
Stacker to clinker pile	0.0001 lb/ton	b	0 tons/hr	0.00 lb/hr	0 tons/day	0.00 lb/day	55,152 tons/yr	0.004 tons/yr
Baghouse #2	0.61 lb/hr	c	0 hr	0.00 lb/hr	19 hours	11.68 lb/day	8,210 hours	2.524 tons/yr
Total				-0.26 lb/hr		17.53 lb/day		3.03 tons/yr

References:

a - AP42 Table 11.19.2-2. Emission Factors for Crushed Stone Processing Operations.

b - AP42 Table 11.19.2-2. Conservatively assume 95 percent of transfer point emissions are captured and routed to a baghouse and five percent fugitive emissions.

c - Baghouse #2 limited to 0.014 grains per dry standard cubic foot.

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
04/03/07

Please see instructions on page 2 before filling out the form.

DEQ USE ONLY
Date Received RECEIVED AUG 27 2007 Department of Environmental Quality State Air Program
Project Number
Payment / Fees Included? Yes ☒ No ☐
Check Number # 2319

COMPANY NAME, FACILITY NAME, AND FACILITY ID NUMBER

1. Company Name	Ash Grove Cement Company		
2. Facility Name	Inkom Facility	3. Facility ID No.	005-00004
4. Brief Project Description - One sentence or less	Increase Clinker Unloading Throughput		

PERMIT APPLICATION TYPE

5. ☐ New Facility ☒ New Source at Existing Facility ☐ Unpermitted Existing Source
☒ Modify Existing Source: Permit No.: T1-2007.0035 Date Issued: May 25, 2007
☐ Required by Enforcement Action: Case No.:____

6. ☒ Minor PTC ☐ Major PTC

FORMS INCLUDED

Included	N/A	Forms	DEQ Verify
☒	☐	Form GI – Facility Information	☐
☒	☐	Form EU0 – Emissions Units General	☐
☐	☒	Form EU1 - Industrial Engine Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU2 - Nonmetallic Mineral Processing Plants Please Specify number of forms attached: _____	☐
☐	☒	Form EU3 - Spray Paint Booth Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU4 - Cooling Tower Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU5 – Boiler Information Please Specify number of forms attached: _____	☐
☐	☒	Form HMAP – Hot Mix Asphalt Plant Please Specify number of forms attached: _____	☐
☐	☒	Form CBP - Concrete Batch Plant Please Specify number of forms attached: _____	☐
☐	☒	Form BCE - Baghouses Control Equipment	☐
☐	☒	Form SCE - Scrubbers Control Equipment	☐
☒	☐	Forms EI-CP1 - EI-CP4 - Emissions Inventory– criteria pollutants (Excel workbook, all 4 worksheets)	☐
☐	☒	PP – Plot Plan	☐
☐	☒	Forms MI1 – MI4 – Modeling (Excel workbook, all 4 worksheets)	☐
☒	☐	Form FRA – Federal Regulation Applicability	☐

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/26/07

Please see instructions on page 2 before filling out the form.

All information is required. If information is missing, the application will not be processed.

IDENTIFICATION	
1. Company Name	Ash Grove Cement Company
2. Facility Name (if different than #1)	Inkom Facility
3. Facility I.D. No.	005-00004
4. Brief Project Description:	Increase Clinker Unloading Throughput
FACILITY INFORMATION	
5. Owned/operated by: (√ if applicable)	☐ Federal government ☐ County government ☐ State government ☐ City government
6. Primary Facility Permit Contact Person/Title	Kelly Packard, Plant Engineer/Environmental Manager
7. Telephone Number and Email Address	208.775.3351x36
8. Alternate Facility Contact Person/Title	Ron Smith, Plant Manager
9. Telephone Number and Email Address	208.775.3351x12
10. Address to which permit should be sent	230 Cement Road
11. City/State/Zip	Inkom, Idaho 83245-1543
12. Equipment Location Address (if different than #10)	
13. City/State/Zip	
14. Is the Equipment Portable?	☐ Yes ☒ No
15. SIC Code(s) and NAISC Code	Primary SIC: 3241 Secondary SIC (if any): NAICS:
16. Brief Business Description and Principal Product	Portland Cement Production
17. Identify any adjacent or contiguous facility that this company owns and/or operates	Not Applicable
PERMIT APPLICATION TYPE	
18. Specify Reason for Application	☐ New Facility ☒ New Source at Existing Facility ☐ Unpermitted Existing Source ☒ Modify Existing Source: Permit No.: T1-2007.0035 Date Issued: May 25, 2007 ☐ Permit Revision ☐ Required by Enforcement Action: Case No.:

CERTIFICATION

IN ACCORDANCE WITH IDAPA 58.01.01.123 (RULES FOR THE CONTROL OF AIR POLLUTION IN IDAHO), I CERTIFY BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION IN THE DOCUMENT ARE TRUE, ACCURATE, AND COMPLETE.

19. Responsible Official's Name/Title	Ron Smith, Plant Manager	
20. RESPONSIBLE OFFICIAL SIGNATURE	R Smith	Date: 8-24-07
21. ☒ Check here to indicate you would like to review a draft permit prior to final issuance.		

Emissions Unit - General **Form EU0**

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

Company Name:	Facility Name:	Facility ID No:
Ash Grove Cement Company	Inkom Facility	005-00004
Brief Project Description:	Increase Clinker Unloading Throughput	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

1. Emissions Unit (EU) Name:	CLINKER UNLOADING - TRUCK/RAILCAR TO HOPPER
2. EU ID Number:	F49D
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source -- Previous Permit #:T1-2007.0035 Date Issued: May 25, 2007
4. Manufacturer:	NOT APPLICABLE
5. Model:	NOT APPLICABLE
6. Maximum Capacity:	300 TONS PER HOUR
7. Date of Construction:	
8. Date of Modification (if any)	AFTER PTC ISSUED
9. Is this a Controlled Emission Unit?	☒ No ☐ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT

10. Control Equipment Name and ID:			
11. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:			
14. ID(s) of Emission Unit Controlled:			
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☐ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☐ No (If Yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency						

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

18. Actual Operation	DEPENDENT ON CEMENT DEMANDS
19. Maximum Operation	DEPENDENT ON CEMENT DEMANDS

REQUESTED LIMITS

20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	
☐ Production Limit(s):	
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☒ Other:	360,000 TONS THROUGHPUT PER YEAR
21. Rationale for Requesting the Limit(s):	PREVIOUS THROUGHPUT PERMIT LIMIT WAS 55,000 TONS PER YEAR

Emissions Unit - General **Form EU0**

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION		
Company Name: Ash Grove Cement Company	Facility Name: Inkom Facility	Facility ID No: 005-00004
Brief Project Description:	Increase Clinker Unloading Throughput	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION	
1. Emissions Unit (EU) Name:	CLINKER UNLOADING - HOPPER TO CONVEYOR NO. 1
2. EU ID Number:	F49E
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source -- Previous Permit #:T1-2007.0035 Date Issued: May 25, 2007
4. Manufacturer:	ERIEZ MAGNETICS
5. Model:	75B
6. Maximum Capacity:	300 TONS/HOUR
7. Date of Construction:	
8. Date of Modification (if any)	AFTER PTC ISSUED
9. Is this a Controlled Emission Unit?	☒ No ☐ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT			
10. Control Equipment Name and ID:			
11. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:			
14. ID(s) of Emission Unit Controlled:			
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☐ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☐ No (If Yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency						

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)	
18. Actual Operation	DEPENDENT ON CEMENT DEMANDS
19. Maximum Operation	DEPENDENT ON CEMENT DEMANDS

REQUESTED LIMITS	
20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	
☐ Production Limit(s):	
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☒ Other:	360,000 TONS THROUGHPUT PER YEAR
21. Rationale for Requesting the Limit(s):	PREVIOUS THROUGHPUT PERMIT LIMIT WAS 55,000 TONS PER YEAR

Emissions Unit - General **Form EU0**

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PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

Company Name:	Facility Name:	Facility ID No:
Ash Grove Cement Company	Inkom Facility	005-00004
Brief Project Description:	Increase Clinker Unloading Throughput	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

1. Emissions Unit (EU) Name:	CONVEYOR NO. 1 TO NO. 2 ELEVATOR
2. EU ID Number:	F49F
3. EU Type:	☐ New Source ☐ Unpermitted Existing Source ☒ Modification to a Permitted Source -- Previous Permit #:T1-2007.0035 Date Issued: May 25, 2007
4. Manufacturer:	COMPONENTS FROM NUMEROUS MANUFACTURERS
5. Model:	NOT APPLICABLE
6. Maximum Capacity:	100 TONS/HOUR
7. Date of Construction:	2006
8. Date of Modification (if any)	AFTER PTC ISSUED
9. Is this a Controlled Emission Unit?	☐ No ☒ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT

10. Control Equipment Name and ID:	Baghouse No. 2, BH2		
11. Date of Installation:		12. Date of Modification (if any):	
13. Manufacturer and Model Number:	Argo-BLower Model 5984-C		
14. ID(s) of Emission Unit Controlled:	Clinker Silo and No. 2 Elevator		
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☒ No		
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☒ No (If Yes, attach and label manufacturer guarantee)		

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency	0.014 gr/dscf	0.014 gr/dscf				

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

18. Actual Operation	DEPENDENT ON CEMENT DEMANDS
19. Maximum Operation	DEPENDENT ON CEMENT DEMANDS

REQUESTED LIMITS

20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	
☐ Production Limit(s):	
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☒ Other:	360,000 TONS THROUGHPUT PER YEAR
21. Rationale for Requesting the Limit(s):	PREVIOUS THROUGHPUT PERMIT LIMIT WAS 55,000 TONS PER YEAR

Emissions Unit - General **Form EU0**

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PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

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IDENTIFICATION		
Company Name: Ash Grove Cement Company	Facility Name: Inkom Facility	Facility ID No: 005-00004
Brief Project Description:	Increase Clinker Unloading Throughput	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION	
1. Emissions Unit (EU) Name:	NO. 2 ELEVATOR TO CLINKER BELT NO. 2
2. EU ID Number:	F49G
3. EU Type:	☒ New Source ☐ Unpermitted Existing Source ☐ Modification to a Permitted Source -- Previous Permit #: Date Issued:
4. Manufacturer:	COMPONENTS FROM NUMEROUS MANUFACTURERS
5. Model:	NOT APPLICABLE
6. Maximum Capacity:	100 TONS/HOUR
7. Date of Construction:	AFTER PTC ISSUED
8. Date of Modification (if any)	
9. Is this a Controlled Emission Unit?	☐ No ☒ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT						
10. Control Equipment Name and ID:	Baghouse No. 2, BH2					
11. Date of Installation:		12. Date of Modification (if any):				
13. Manufacturer and Model Number:	Argo-BLower Model 5984-C					
14. ID(s) of Emission Unit Controlled:	Clinker Silo and No. 2 Elevator					
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☒ No					
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☒ No (If Yes, attach and label manufacturer guarantee)					
	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency	0.014 gr/dscf	0.014 gr/dscf				
17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.						

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)	
18. Actual Operation	DEPENDENT ON CEMENT DEMANDS
19. Maximum Operation	DEPENDENT ON CEMENT DEMANDS

REQUESTED LIMITS	
20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	
☐ Production Limit(s):	
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☒ Other:	360,000 TONS THROUGHPUT PER YEAR
21. Rationale for Requesting the Limit(s):	PREVIOUS CLINKER UNLOADING OPERATIONS LIMITED TO 55,000 TONS PER YEAR

Emissions Unit - General **Form EU0**

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PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/27/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION		
Company Name: Ash Grove Cement Company	Facility Name: Inkom Facility	Facility ID No: 005-00004
Brief Project Description:	Increase Clinker Unloading Throughput	

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION	
1. Emissions Unit (EU) Name:	CLINKER BELT NO. 2 TO CLINKER STACKING BELT
2. EU ID Number:	F49H
3. EU Type:	☒ New Source ☐ Unpermitted Existing Source ☐ Modification to a Permitted Source -- Previous Permit #: Date Issued:
4. Manufacturer:	COMPONENTS FROM NUMEROUS MANUFACTURERS
5. Model:	NOT APPLICABLE
6. Maximum Capacity:	100 TONS/HOUR
7. Date of Construction:	AFTER PTC ISSUED
8. Date of Modification (if any)	
9. Is this a Controlled Emission Unit?	☐ No ☒ Yes If Yes, complete the following section. If No, go to line 18.

EMISSIONS CONTROL EQUIPMENT						
10. Control Equipment Name and ID:	Baghouse No. 2, BH2					
11. Date of Installation:		12. Date of Modification (if any):				
13. Manufacturer and Model Number:	Argo-BLower Model 5984-C					
14. ID(s) of Emission Unit Controlled:	Clinker Silo and No. 2 Elevator					
15. Is operating schedule different than emission units(s) involved?	☐ Yes ☒ No					
16. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☒ No (If Yes, attach and label manufacturer guarantee)					
	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency	0.014 gr/dscf	0.014 gr/dscf				
17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.						

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)	
18. Actual Operation	DEPENDENT ON CEMENT DEMANDS
19. Maximum Operation	DEPENDENT ON CEMENT DEMANDS

REQUESTED LIMITS	
20. Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, check all that apply below)
☐ Operation Hour Limit(s):	
☐ Production Limit(s):	
☐ Material Usage Limit(s):	
☐ Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
☒ Other:	360,000 TONS THROUGHPUT PER YEAR
21. Rationale for Requesting the Limit(s):	PREVIOUS CLINKER UNLOADING OPERATIONS LIMITED TO 55,000 TONS PER YEAR

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Please see instructions on page 2 before filling out the form.

Company Name:	**Ash Grove Cement Company**
Facility Name:	Inkom Facility
Facility ID No.:	005-00004
Brief Project Description:	Increase Clinker Unloading Throughput

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - POINT SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_X		CO		VOC		Lead	
Emissions units	**Stack ID**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**
Point Source(s)													
Baghouse #2	BH2	0.61	2.69										
Total		0.61	2.69										

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PERMIT TO CONSTRUCT APPLICATION
Revision 2
4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	Ash Grove Cement Company
Facility Name:	Inkom Facility
Facility ID No.:	005-00004
Brief Project Description:	Increase Clinker Unloading Throughput

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - FUGITIVE SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_X		CO		VOC		Lead	
Fugitive Source Name	**Fugitive ID**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**
Fugitive Source(s)													
Bellydump to hopper	F49d	0.01	0.02										
Hopper to Conveyor	F49e	0.11	0.20										
Conveyor 1 to Elevator	F49f	0.01	0.01										
Elevator to conveyor 2	F49g	0.01	0.01										
Conveyor 2 to stacker belt	F49h	0.01	0.01										
Stacker belt to stacker	F63	0.01	0.01										
Stacker to clinker pile	F64	0.01	0.01										
Total		0.16	0.27										

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PERMIT TO CONSTRUCT APPLICATION
Revision 3
4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	Ash Grove Cement Company
Facility Name:	Inkom Facility
Facility ID No.:	005-00004
Brief Project Description:	Increase Clinker Unloading Throughput

SUMMARY OF EMISSIONS INCREASE (PROPOSED PTE - PREVIOUSLY MODELED PTE) - POINT SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_X		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Source(s)													
Baghouse #2	BH2	0.00	2.52										
Total			2.52										

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PERMIT TO CONSTRUCT APPLICATION

Revision 3
4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	Ash Grove Cement Company
Facility Name:	Inkom Facility
Facility ID No.:	005-00004
Brief Project Description:	Increase Clinker Unloading Throughput

SUMMARY OF EMISSIONS INCREASE (PROPOSED PTE - PREVIOUSLY MODELED PTE) - FUGITIVE SOURCES

1.	2.	3. Air Pollutant Maximum Change in Emissions Rate (lbs/hr or t/yr)											
		PM_{10}		SO_2		NO_X		CO		VOC		Lead	
Fugitive Source Name	**Fugitive ID**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**	**lb/hr**	**T/yr**
Fugitive Source(s)													
Bellydump to hopper	F49d	0.00	0.02										
Hopper to Conveyor 1	F49e	0.00	0.17										
Conveyor 1 to Elevator	F49f	(0.10)	(0.02)										
Elevator to conveyor 2	F49g	0.01	0.01										
Conveyor 2 to stacker belt	F49h	0.01	0.01										
Stacker belt to stacker	F63	0.00	0.00										
Stacker to clinker pile	F64	0.00	0.00										
Total		(0.08)	0.19										

Federal Requirements Applicability **Form FRA**

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PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/26/07

Please see instructions on page 2 before filling out the form.

IDENTIFICATION		
Company Name: Ash Grove Cement Company	Facility Name: Inkom Facility	Facility ID No: 005-00004
Brief Project Description: Increase Clinker Unloading Throughput		

APPLICABILITY DETERMINATION		
1. Will this project be subject to 1990 CAA Section 112(g)? (Case-by-Case MACT)	☒ NO	☐ YES* * If YES, applicant must submit an application for a case-by-case MACT determination [IAC 567 22-1(3)"b" (8)]
2. Will this project be subject to a New Source Performance Standard? (40 CFR part 60)	☐ NO	☒ YES* *If YES, please identify sub-part: F
3. Will this project be subject to a MACT (Maximum Achievable Control Technology) regulation? (40 CFR part 63) THIS ONLY APPLIES IF THE PROJECT EMITS A HAZARDOUS AIR POLLUTANT	☒ NO	☐ YES* *If YES, please identify sub-part: _____
4. Will this project be subject to a NESHAP (National Emission Standards for Hazardous Air Pollutants) regulation? (40 CFR part 61)	☒ NO	☐ YES* *If YES, please identify sub-part: _____
5. Will this project be subject to PSD (Prevention of Significant Deterioration)? (40 CFR section 52.21)	☒ NO	☐ YES
6. Was netting done for this project to avoid PSD?	☒ NO	☐ YES* *If YES, please attach netting calculations

IF YOU ARE UNSURE HOW TO ANSWER ANY OF THESE QUESTIONS, CALL THE AIR PERMIT HOTLINE AT 1-877-5PERMIT